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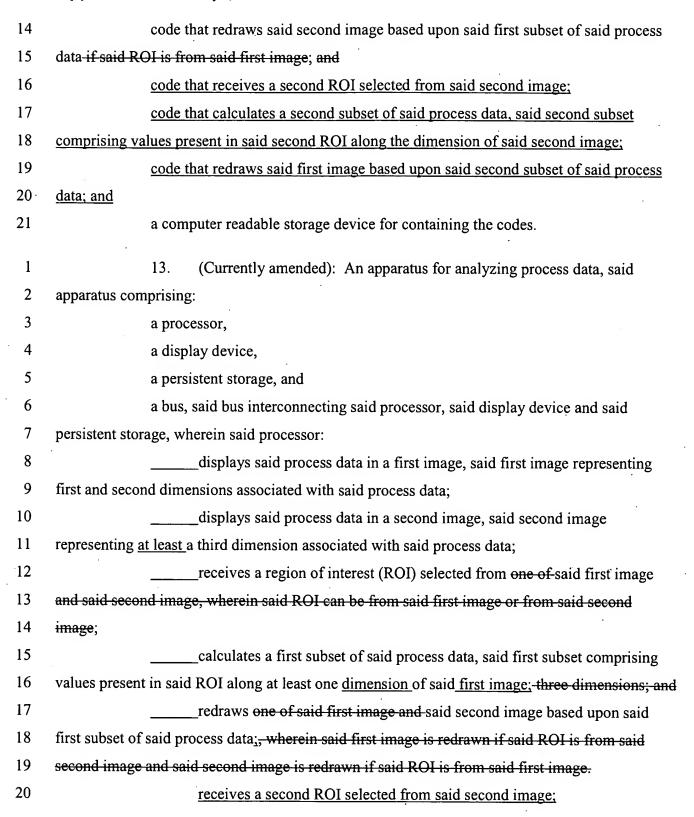Amdt. sent August 9, 2005
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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1   1.   (Currently amended): A method for analyzing process data, said method

2   comprising:

3   displaying said process data in a first image, said first image representing first and

4 second dimensions associated with said process data;

5   displaying said process data in a second image, said second image representing <u>at</u>

6 <u>least</u> a third dimension associated with said process data;

7   receiving a region of interest (ROI) selected from ~~one of~~ said first image ~~and said~~

8 ~~second image, wherein said ROI can be from said first image or from said second image~~;

9   calculating a first subset of said process data, said first subset comprising values

10 present in said selected ROI; ~~and~~

11   redrawing ~~one of said first image and~~ said second image based upon said first

12 subset of said process data~~;, wherein said first image is redrawn if said ROI is from said second~~

13 ~~image and said second image is redrawn if said ROI is from said first image.~~

14   <u>receiving a second ROI selected from said second image;</u>

15   <u>calculating a second subset of said process data, said second subset comprising</u>

16 <u>values present in said second ROI; and</u>

17   <u>redrawing said first image based upon said second subset of said process data.</u>

1   2.   (Original): The method for analyzing process data of claim 1, wherein

2 one of said first, second, and third dimensions comprising at least one of a process dimension, a

3 time dimension, and a type of procedure dimension.

1   3.   (Original): The method for analyzing process data of claim 1, said first

2 image and said second image each comprising at least one of a two-dimensional map and a one-

3 dimensional graph.

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1   4.   (Original): The method for analyzing process data of claim 1, said first

2 image and said second image comprising a first two-dimensional map and a second two

3 dimensional map indicating four-dimensional data.

1   5.   (Original): The method for analyzing process data of claim 1, said first

2 image and said second image each comprising a 2D-scatter graph indicating a distribution of said

3 process data.

1   6.   (Original): The method for analyzing process data of claim 5, said one-

2 dimensional graph comprising at least one of a bar graph and a line graph.

1   7.   (Original): The method for analyzing process data of claim 1, further

2 comprising indicating at least one correlation between said three dimensions using a third image.

1   8.   (Original): The method for analyzing process data of claim 7, further

2 comprising displaying at least two of said first image, said second image and said third image on

3 a computer screen.

1   9.   (Currently amended): A method for analyzing clinical pathways, said

2 method comprising:

3   providing a two dimensional presentation of clinical data and a one dimensional

4 presentation of said clinical data, thereby enabling visualization of said clinical data in at least

5 one of three or more dimensions, including a patient dimension, a time dimension, and a

6 procedure dimension;

7   receiving a selection of a region of interest (ROI)~~, said selection from at least one~~

8 ~~of~~ from said two dimensional presentation ~~and said one dimensional presentation, wherein said~~

9 ~~ROI can be from said two dimensional presentation or from said one dimensional presentation~~;

10   calculating a first subset of said process data, said first subset comprising values

11 present in said ROI along at least one dimension of said two dimensional presentation~~three~~

12 ~~dimensions~~; ~~and~~

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13   redrawing ~~one of said two dimensional presentation and~~ said one dimensional

14 presentation based upon said first subset of said process data~~; wherein said two dimensional~~

15 ~~presentation is redrawn if said ROI is from said one dimensional presentation and said one~~

16 ~~dimensional presentation is redrawn if said ROI is from said second presentation.~~

17   receiving a selection of a second ROI from said one dimensional presentation;

18   calculating a second subset of said process data, said second subset comprising

19 values present in said second ROI along the dimension of said one dimensional presentation; and

20   redrawing said two dimensional presentation based upon said second subset of

21 said process data.

1   10.   (Original): The method for analyzing clinical pathways of claim 9, said

2 two dimensional presentation comprising a map.

1   11.   (Original): The method for analyzing clinical pathways of claim 9, said

2 one dimensional presentation comprising a graph.

1   12.   (Currently amended): A computer program product for analyzing process

2 data, said computer program product comprising:

3   code that displays said process data in a first image, said first image representing

4 first and second dimensions associated with said process data;

5   code that displays said process data in a second image, said second image

6 representing at least a third dimension associated with said process data;

7   code that receives a region of interest (ROI) selected from ~~one of~~ said first image

8 ~~and said second image, wherein said ROI can be from said first image or from said second~~

9 ~~image;~~

10   code that calculates a first subset of said process data, said first subset comprising

11 values present in said ROI along at least one dimension of said first image ~~three dimensions~~;

12   ~~code that redraws said first image based upon said first subset of said process data~~

13 ~~if said ROI is from said second image;~~

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14   code that redraws said second image based upon said first subset of said process

15 data ~~if said ROI is from said first image~~; and

16   code that receives a second ROI selected from said second image;

17   code that calculates a second subset of said process data, said second subset

18 comprising values present in said second ROI along the dimension of said second image;

19   code that redraws said first image based upon said second subset of said process

20 data; and

21   a computer readable storage device for containing the codes.

1   13. (Currently amended): An apparatus for analyzing process data, said

2 apparatus comprising:

3   a processor,

4   a display device,

5   a persistent storage, and

6   a bus, said bus interconnecting said processor, said display device and said

7 persistent storage, wherein said processor:

8   _____displays said process data in a first image, said first image representing

9 first and second dimensions associated with said process data;

10   _____displays said process data in a second image, said second image

11 representing at least a third dimension associated with said process data;

12   _____receives a region of interest (ROI) selected from ~~one of~~ said first image

13 ~~and said second image, wherein said ROI can be from said first image or from said second~~

14 ~~image~~;

15   _____calculates a first subset of said process data, said first subset comprising

16 values present in said ROI along at least one dimension of said first image; ~~three dimensions; and~~

17   _____redraws ~~one of said first image and~~ said second image based upon said

18 first subset of said process data;~~; wherein said first image is redrawn if said ROI is from said~~

19 ~~second image and said second image is redrawn if said ROI is from said first image.~~

20   receives a second ROI selected from said second image;

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21   calculates a second subset of said process data, said first subset comprising

22   values present in said second ROI along the dimension of said first image; and

23   redraws said first image based upon said first subset of said process data.

1   14.   (Currently amended): An apparatus for analyzing process data, said

2 apparatus comprising:

3   means for displaying said process data in a first image, said first image

4 representing first and second dimensions associated with said process data;

5   means for displaying said process data in a second image, said second image

6 representing at least a third dimension associated with said process data;

7   means for receiving a region of interest (ROI) selected from ~~one of~~ said first

8 image ~~and said second image, wherein said ROI can be from said first image or from said second~~

9 ~~image~~;

10   means for calculating a first subset of said process data, said first subset

11 comprising values present in said ROI along at least one dimension of said first image; ~~three~~

12 ~~dimensions; and~~

13   means for redrawing ~~one of said first image and~~ said second image based upon

14 said first subset of said process data;~~, wherein said first image is redrawn if said ROI is from said~~

15 ~~second image and said second image is redrawn if said ROI is from said first image.~~

16   means for receiving a second ROI selected from said second image;

17   means for calculating a second subset of said process data, said second subset

18 comprising values present in said second ROI along the dimension of said second image; and

19   means for redrawing said first image based upon said second subset of said

20 process data

1   15.   (Currently amended): A system for analyzing process data, said system

2   comprising:

3   a database server,

4   an application client, in communication with said application server,

5   an application server, in communication with said application server and said

6   application client; wherein

7   said application server abstracts said process data stored in said database server

8   into at least three dimensions and forwards said abstracted process data to said application client;

9   and wherein

10   said application client provides a plurality of images, including a first image and a

11   second image, said plurality of images enabling visualization of said process data in at least one

12   of said three dimensions; wherein at least one correlation between at least two of said three

13   dimensions is indicated using said first image and a quantity measure in at least one of said three

14   dimensions is indicated using said second image; and wherein

15   said application client receives a selection of ~~at least one~~a region of interest (ROI)

16   selected from ~~one of~~ said first image, ~~and said second image, wherein said ROI can be from said~~

17   ~~first image or from said second image; and~~ wherein

18   said application client calculates a first subset of said process data, said first

19   subset comprising values present in said ROI along at least one dimension of said first image,

20   ~~three dimensions; and~~ wherein

21   said application client redraws ~~at least one of said first image and~~ said second

22   image based upon said first subset of said process data, wherein ~~said first image is redrawn if~~

23   ~~said ROI is from said second image and said second image is redrawn if said ROI is from said~~

24   ~~first image.~~

25   said application client receives a selection a second ROI selected from said

26   second image, wherein

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27   said application client calculates a second subset of said process data, said second

28   subset comprising values present in said second ROI along the dimension of said second image,

29   wherein

30   said application client redraws said first image based upon said second subset of

31   said process data.

1   16.   (Currently amended): A method for analyzing process data, said method

2   comprising:

3   abstracting said process data into at least three dimensions;

4   providing a plurality of visualization devices, including a first visualization device

5   and a second visualization device, said plurality of visualization devices enabling visualization of

6   said process data in at least one of said three dimensions;

7   indicating at least one correlation between at least two of said three dimensions in

8   said first visualization device;

9   indicating a quantity measure by at least one of said three dimensions in said

10   second visualization device;

11   receiving a selection of at least one of a plurality of regions of interest (ROI), said

12   selection being made from at least one dimension ~~chosen from among said three dimensions,~~

13   ~~said selection indicated on at least one~~ of said first visualization device ~~and said second~~

14   ~~visualization device, wherein said ROI can be from said first visualization device or from said~~

15   ~~second visualization device;~~

16   calculating a first subset of said process data, said first subset comprising values

17   present in said ROI; ~~and~~

18   redrawing ~~said first visualization device if said ROI is from said second~~

19   ~~visualization device and redrawing~~ said second visualization device; ~~if said ROI is from said first~~

20   ~~visualization device.~~

21   receiving a selection of a second ROI, said selection being made from the

22   dimension of second visualization device;

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23   calculating a second subset of said process data, said second subset comprising

24   values present in said second ROI; and

25   redrawing said first visualization device.

17-21.   (Canceled)

1   22.   (Currently amended): ~~A method for analyzing process data, said~~ The

2   method of claim 16 further comprising:

3   ~~abstracting said process data into at least three dimensions;~~

4   ~~providing a plurality of visualization devices, including a first visualization device~~

5   ~~and a second visualization device, said plurality of visualization devices enabling visualization of~~

6   ~~said process data in at least one of said three dimensions;~~

7   ~~indicating at least one correlation between at least two of said three dimensions in~~

8   ~~said first visualization device;~~

9   ~~indicating a quantity measure by at least one of said three dimensions in said~~

10   ~~second visualization device;~~

11   ~~receiving a selection of at least one of a plurality of regions of interest (ROI), said~~

12   ~~selection from at least one dimension chosen from among said three dimensions, said selection~~

13   ~~indicated on at least one of said first visualization device and said second visualization device;~~

14   ~~calculating a first subset of said process data, said first subset comprising values~~

15   ~~present in said ROI;~~

16   ~~receiving a second selection of at least one of said plurality of regions of interest~~

17   ~~(ROI), said second selection from at least one dimension chosen from among said three~~

18   ~~dimensions, said second selection indicated on at least one of said first visualization device and~~

19   ~~said second visualization device;~~

20   ~~calculating a second subset of said process data, said second subset comprising~~

21   ~~values present in said second selection of at least one of said plurality of regions of interest along~~

22   ~~at least one of said three dimensions;~~

23   applying a function to said first subset of said process data and said second subset

24   of said process data, yielding a third subset of said process data; and

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25   displaying said third subset of said process data together using at least one of said

26   first visualization device and said second visualization device,

27   said function comprising at least one of an addition, a subtraction, a

28   multiplication, an exponentiation, a division, a root, a boolean operator, a modulo, and an

29   absolute value.

1   23.   (Currently amended): ~~A method for analyzing process data, said~~<u>The</u>

2   method <u>of claim 16 further</u> comprising:

3   ~~abstracting said process data into at least three dimensions;~~

4   ~~providing a plurality of visualization devices, including a first visualization device~~

5   ~~and a second visualization device, said plurality of visualization devices enabling visualization of~~

6   ~~said process data in at least one of said three dimensions;~~

7   ~~indicating at least one correlation between at least two of said three dimensions in~~

8   ~~said first visualization device;~~

9   ~~indicating a quantity measure by at least one of said three dimensions in said~~

10   ~~second visualization device;~~

11   ~~receiving a selection of at least one of a plurality of regions of interest (ROI), said~~

12   ~~selection from at least one dimension chosen from among said three dimensions, said selection~~

13   ~~indicated on at least one of said first visualization device and said second visualization device;~~

14   ~~calculating a first subset of said process data, said first subset comprising values~~

15   ~~present in said ROI;~~

16   ~~receiving a second selection of at least one of said plurality of regions of interest~~

17   ~~(ROI), said second selection from at least one dimension chosen from among said three~~

18   ~~dimensions, said second selection indicated on at least one of said first visualization device and~~

19   ~~said second visualization device;~~

20   ~~calculating a second subset of said process data, said second subset comprising~~

21   ~~values present in said second selection of at least one of said plurality of regions of interest along~~

22   ~~at least one of said three dimensions;~~

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23   applying a function to said first subset of said process data and said second subset

24 of said process data, yielding a third subset of said process data; and

25   displaying said third subset of said process data together using at least one of said

26 first visualization device and said second visualization device,

27   said third subset of said process data displayed using at least one of a plurality of

28 different colors, a plurality of different intensities of a color, a plurality of different intensities of

29 a plurality of different colors.